

Reviewer Checklist for San Diego BMP Sizing Calculator

October 7, 2011

Note: This checklist is intended to be used by the planchecker.

General Notes		
	A.	Planchecker is familiar with the San Diego BMP Sizing Calculator Methodology.
	B.	Planchecker is familiar with all the topics within the ‘Start’ tab of the San Diego BMP Sizing Calculator.
	C.	Pre-project and post-project watershed acreage must be equal. If acreage is different, the project must use another continuous simulation model (i.e. SDHM or HSPF).
	D.	It is important to verify that each point of compliance (POC) has been appropriately selected.
Step 1		
Verify that the following text files are included on the CD:		
	A.	Basin Manager (required for all projects): (See Steps 3-5 for required information)
For projects proposing the following:		
	B.	LID Sizer and Pond Sizer: (See Steps 6-11 for required information)
	C.	LID Sizer Only: (See Steps 6-8 for required information)
	D.	Pond Sizer Only: (See Steps 9-11 for required information)
Step 2		
Go to the ‘Export’ tab within each tool (i.e. Basin Manager, LID Sizer, Pond Sizer, as applicable) and verify that these text files can be successfully imported based on the “Import and Export Instructions” on the Project Clean Water website. Please consult with the software developer of the San Diego BMP Sizing Calculator for any “Import and Export” issues.		
	A.	Log-in to the San Diego BMP Sizing Calculator. Go to the ‘Export’ tab within “Basin Manager” tool and click the “Import” button to import the Basin Manager file.
	B.	If the project proposes both LID facilities and pond facilities, go to the ‘Export’ tab within “LID Sizer” tool and click the “Import” button to import the LID Sizer file(s). Then go to the ‘Export’ tab within “Pond Sizer” tool and click the “Import” button to import the Pond Sizer file(s). <ul style="list-style-type: none"> LID Sizer File (i.e. LIDOutput.txt) Pond Sizer File (i.e. PondOutput.txt)
	C.	If the project proposes LID facilities, go to the ‘Export’ tab within “LID Sizer” tool and click the “Import” button to import the LID Sizer file(s). <ul style="list-style-type: none"> LID Sizer File (i.e. LIDOutput.txt)
	D.	If the project proposes Pond facilities, go to the ‘Export’ tab within “Pond Sizer” tool and click the “Import” button to import the Pond Sizer file(s). <ul style="list-style-type: none"> Pond Sizer File (i.e. PondOutput.txt)

Basin Manager (required for all projects)		
Step 3		
Once the text files are imported, go to the 'Project' tab in the "Basin Manager" tool and verify that the following information is included, as applicable.		
	A.	Name (Project)
	B.	Applicant
	C.	Parcel (APN)
	D.	Jurisdiction
	E.	Hydrologic Unit
	F.	Description (Project)
	G.	Street (Project Address)
	H.	City (Project City)
Step 4		
Go to the 'Basin' tab in the "Basin Manager" tool and verify that the following information is included:		
	A.	Name (Drainage Basin)
	B.	Description (Drainage Basin)
	C.	Design Goal *
	D.	Rainfall Basin **
	E.	Point of Compliance
	F.	Project Basin Area (ac)
	G.	Mean Annual Precipitation (in) – pre-populated based on "Rainfall Basin" selected
* Design goal has two options: "Treatment Only" or "Treatment + Flow Control." Make sure that the applicable design goal is selected for the project.		
** Three Rain Basins are available to choose from: Oceanside, Lake Wohlford, and Lindbergh Field. In relation to the project vicinity map provided, verify that the project is within the appropriate region of influence for the Rain Basin using the "Map" layer. Click "Map" text in the upper right hand corner of the "Screen" to access the "Map" layer.		
Step 5		
Go to the 'POC' tab in the "Basin Manager" tool. First verify if the "Channel Assessed" option says "Yes" or "No." If it is "No," it means that the project did not perform a geomorphic assessment and the project assumed a low flow threshold of 0.1Q2 and has a HIGH channel susceptibility. If it is "Yes," the project performed a geomorphic assessment; therefore, the 'POC' tab should include the following information:		
	A.	Watershed Area (ac)
	B.	Vertical Susceptibility
	C.	Lateral Susceptibility
	D.	Material
	E.	Roughness
	F.	Channel Top Width (ft)
	G.	Channel Bottom Width (ft)
	H.	Channel Height (ft)
	I.	Channel Slope

LID Sizer (as applicable)		
Step 6		
Go to the 'DMA' tab in the "LID Sizer" tool. Click each "DMA ID" and make sure that the following DMA properties are defined properly on the provided HMP exhibit(s):		
	A.	Description (DMA ID)
	B.	DMA Type
	C.	BMP ID
	D.	Drainage Area (ac)
	E.	Drainage Soil *
	F.	Post Surface
	G.	Pre-project Cover
	H.	Pre-project Slope **
* Use the "Map" layer to verify that each Drainage Management Area (DMA) has the appropriate soil type. Click "Map" text in the upper right hand corner of the "Screen" to access the "Map" layer. If the soil type given does not match the map layer, consult HMP study to determine if alternative method was used to obtain soil type.		
** Consult the HMP study for supporting documentation to verify that the pre-project slope for each DMA is either "Flat (less than 5%)," "Moderate (5 – 10%)," or "Steep (greater than 10%)."		
Step 7		
Go to the 'LID' tab in the "LID Sizer" tool and verify that the following information is included:		
	A.	Description (BMP ID)
	B.	LID Type *
	C.	Flow Threshold (cfs) – the San Diego BMP Sizing Calculator calculates this value
	D.	Drainage Area (ac) **
* Make sure that the appropriate "LID Type" is selected for the project. Five (5) "LID Types" are available to choose from: Bioretention, Bioretention + Cistern, Bioretention + Vault, Flow-through Planter, and Infiltration Facility.		
** Unless the project has DMAs that are either self-treating or self-retaining, the sum of all DMA Drainage Areas must equal the total "Project Basin Area" in the 'Basin' tab within the "Basin Manager" tool.		
Step 8		
	Verify that the results in the 'LID' tab (i.e. highlighted in orange cells) match the results shown on the provided hardcopy project summary report. Go to the 'Report' tab and also verify that the project summary report matches the provided hardcopy.	

Pond Sizer (as applicable)		
Step 9		
Go to the 'DMA' tab in the "Pond Sizer" tool. Click each "DMA ID" and make sure that the following DMA properties are defined properly on the provided HMP exhibit(s):		
	A.	Description (DMA ID)
	B.	DMA Type
	C.	Drainage Area (ac)
	D.	Drainage Soil *
	E.	Pre-project Cover
	F.	Pre-project Slope **
	G.	Post-project Cover
* Use the "Map" layer to verify that each Drainage Management Area (DMA) has the appropriate soil type. Click "Map" text in the upper right hand corner of the "Screen" to access the "Map" layer. If the soil type given does not match the map layer, consult HMP study to determine if alternative method was used to obtain soil type.		
** Consult the HMP study for supporting documentation to verify that the pre-project slope for each DMA is either "Flat (less than 5%)," "Moderate (5 – 10%)," or "Steep (greater than 10%)."		
Step 10		
Go to the 'Pond' tab in the "Pond Sizer" tool and verify that the following information is included:		
	A.	Description (Scenario)
	B.	Pond Soil Type
	C.	Side Slope 1 (H:1)
	D.	Side Slope 1 (H:2)
	E.	Depth (ft)
	F.	Lower Orifice Invert (ft)
	G.	Upper Orifice Invert (ft)
	H.	Weir Invert (ft)
	I.	Weir Length (ft)
Step 11		
	A.	Verify that the results in the 'Pond' tab (i.e. highlighted in orange cells) match the results shown on the provided hardcopy project summary report.
	B.	Make sure that in the "Pond Analysis Results" box that the sizing is "complete" and the drawdown time pond size is okay. If the drawdown time is greater than 96 hours, make sure that a vector control plan is included in the HMP report.
	C.	Go to the 'Report' tab and also verify that the project summary report matches the provided hardcopy.
	D.	If the sizing has "FAILED," request the applicant to re-size the proposed hydromodification management BMP and resubmit the HMP report.